

**REMARKS**I. Inventive Features of Present Invention:

The present invention relates to a non-threaded locking and securing device for securing a first support to a second support. The claims have been amended to recite the following features (numbers have been added to the various claims to aid in review):

1) the securing means 80 and the locking means 88 are non-threaded (as supported by the specification and claims 40-41, 44 and 47);

2) the handle 84 is in a plane extending through a line defined by a Y axis and the non-threaded securing pin 82 is in a plane extending through a line defined by an X axis, the non-threaded securing pin 82 and handle 84 being in the same plane as defined by the X and Y axes; the non-threaded securing pin 82 also being in a parallel relationship with the extending section 81 of the non-threaded locking means 88 which is also in a plane defined by the X axis (as supported by the specification and claims 34, 36 and 38); and

3) the non-threaded engaging section 87 is in a plane extending through a line defined by a Z axis in a direction away from the X axis, and the Z axis is perpendicular to both the X and Y axes such that the distal end 89 extends from the engaging means in a direction toward the handle whereby the distal end is in a second plane extending through a line defined by a second Y axis (as supported by the specification and claims 35, 37 and 39).

In addition, claim 1 has been amended to recite the feature that the securing means further includes at least one biasing means for holding the securing means in the secured position (as supported by the specification and claims 8 and 22).

None of the references taken alone, or in any combination, teaches or describes the present invention where a non-threaded locking and securing device extends in 3 dimensions – X, Y and Z axes, as best shown in Figs. 2 – 5.

II. Reconsideration of rejection of claims 1 and 3-14 under 35 U.S.C. §112, first paragraph, is respectfully requested.

Applicant is amending independent claim 1 to delete the phrase "the locking means and" to overcome the Examiner's rejection that the locking means is not moveable along the same longitudinal axis as the pin. Therefore, the Examiner is respectfully requested to withdraw this rejection of the claims.

III. Reconsideration of the rejection of claims 1, 3-7, 13, 14, 34, 35, 40, 41, 42 and 43 under 35 U.S.C. §102(b) over the Brown US Patent No. 3,561,804 reference and the rejection of claims 1, 3-6, 13, 15, 17-19, 34, 36, 40, 41, 42, 43, 45 and 46 under 35 U.S.C. §102(b) over the Smith US Patent No. 4,370,544 reference is respectfully requested.

Claims 4 – 5, 13 – 14, 17 – 18, 34 – 36 and 40 – 41 have been cancelled. Independent claim 1 (from which claims 3, 6 – 7, 15, 42 and 43 depend) has been amended. Claims 19, 45 and 46 depend from amended independent claim 15. The present invention relates to a non-threaded locking and securing device for securing a first support to a second support. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, independent claim 1 has been amended, as discussed above, to recite, in part, the features of claim 8 where the securing means further includes at least one biasing means for holding the securing means in the secured

position. This feature is not shown or suggested in the Brown or Smith references. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

There is no teaching or suggestion of the non-threaded locking and securing device, as now recited in the amended claims. Therefore, the Examiner is respectfully requested to withdraw this rejection of the claims.

IV. Reconsideration of the rejection of claims 1, 3-8 and 13-15, 17-19, 21 and 22 under 35 U.S.C. §103(a) over the Perry 5,390,761 reference is respectfully requested.

Claims 4 – 5, 8, 13 – 14 and 17 – 18 have been cancelled and independent claim 1 (from which claims 3, 6 – 7 depend) and independent claim 15 (from which claims 19 and 21 – 22 depend) have been amended. The present invention relates to a non-threaded locking and securing device for securing a first support to a second support. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, independent claim 1 has been amended to recite, in part, the features of claims 40-41, 44 and 47 where the securing means and the locking means are non-threaded.

The present invention provides a distinct advantage over the Perry device by providing the worker with an easy-to-operate locking and securing mechanism.

The Perry reference shows "handles 66 and a locking means 69" which are internal threads, as shown in Fig. 4 in Perry reference and "a means for engagement 58" which is an externally threaded rod. The Perry reference requires that the externally threaded rod

58 is engaged with the internally threaded disk 66 and the internal thread 69 in order to lock the Perry device. The Perry reference requires that simultaneous movement of pushing a plate 78 upward and grasping the threaded disk and pulling the pin towards the first wall be done in order to disengage the latch pin 62 from the vertical leg 16 of the Perry device. The Perry device must be unscrewed every time the unit needs to be unsecured. This extra unlocking step causes the users to tend to bypass the Perry lock by taping it up. Therefore, the Perry reference teaches away from the present invention. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by references.

There is no teaching or suggestion of the non-threaded locking and securing device, as now recited in the amended claims. Therefore, the Examiner is respectfully requested to withdraw this rejection of the claims.

V. Reconsideration of the rejection of claims 1, 3-13, 34 and 40-43 under 35 U.S.C. §103(a) over the McManigal et al. US Patent No.5,062,669 and the Calco US Patent No. 5,032,045 references is respectfully requested.

Claims 4 – 5, 8, 13, 34 and 40 – 41 have been cancelled. Independent claim 1 and dependent claims 3, 6 – 7, 9 – 12 and 42 – 43 have been amended. The present invention relates to a non-threaded locking and securing device for securing a first support to a second support. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, the claims have been amended, to recite, in part, the features of claim 35 were the non-threaded engaging means is in a plane extending through a

line defined by a Z axis in a direction away from the X axis, and the Z axis is perpendicular to both the X and Y axes such that a distal end extends from the engaging means in a direction toward the handle whereby the distal end is in a second plane extending through a line defined by a second Y axis.

In contrast, the McManigal reference shows a locking device which is only opened by connection with an air system of a truck vehicle. The Calco reference shows a quick action clamp that is design to secure experimental packages during flight prior to a free fall when the package is released. Thus, the Calco device is the exact opposite of when the present invention accomplishes. The Calco device is not appropriate for locking opposing supports together since, immediately upon unlocking the Calco device, the Calco device is unsecured which, in turn, would cause the supports to come apart. In addition, the arguments presented in the previous responses are applicable here and are fully incorporated herein by reference.

Therefore, both the McManigal and Calco references teach away from the present invention and fail to teach or suggest the present invention. Therefore, the Examiner is respectfully requested to withdraw this basis of rejection.

VI. Reconsideration of the rejection of claims 8 and 9 under 35 U.S.C. §103(a) over the Brown reference in view of the Weiland US Patent No. 1,315,266 reference is respectfully requested.

Claim 8 has been cancelled and claim 9 depends from amended independent claim 1, as fully described above. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, Claim 1 has been amended to recite, in part, the features of claims 40-41 where the securing means and the

locking means are non-threaded. Also, as described above, the Brown reference fails to teach or suggest the present invention.

The Weiland reference fails to supply the differences of the Brown reference and fails to teach or suggest the locking means being in an offset relationship with respect to any handle. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated by reference.

Therefore, the Brown and Weiland references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

VII. Reconsideration of the rejection of claims 8-12, 22-33, 38, 47, 48 and 49 under 35 U.S.C. §103(a) over the Smith reference in view of the Weiland reference is respectfully requested.

Claims 8, 29, 33, 38 and 47 have been cancelled and dependent claims 9 – 12, 22 – 32 and 47 – 48 depend from either amended claims 1, 15 or 27 and define further features of the present invention. The present invention relates to a non-threaded locking and securing device for securing a first support to a second support. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, independent claim 1 has been amended to recite, in part, the features of claim 35, as fully described above, where the non-threaded engaging means is in a plane extending through a line defined by a Z axis in a direction away from the X axis, and the Z axis is perpendicular to both the X and Y axes.

The distinctions of the present invention over the cited Smith reference and the Weiland reference are clearly set forth above. In particular, the Smith bolt is only moveable by exerting a non-coaxial force either the inside handle or the outside handle. Further, the Weiland reference shows a centered spring and fails to teach or suggest the locking means having an engaging member at a distal end of a locking member. As such, the Weiland reference fails to supply any of the deficiencies of the Smith reference. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

Therefore, Applicant submits that the present invention is patentably distinct and the Examiner is respectfully requested to withdraw this rejection of claims.

VIII. Reconsideration of the rejections of claims 11, 12, 25-28, 30-33, 38 and 47-49 under 35 U.S.C. §103(a) over the cited Smith and the Weiland references, as applied above, and further in view of the Emmertt US Patent No. 1,570,135 reference is respectfully requested.

Claims 33, 38 and 47 have been cancelled. The claims 11, 12, 25, 26, 28, 30-32, and 48-49 depend from either independent claims 1, 15 or 27, which have been amended as discussed above to recite, in part, the three-dimensional "X, Y and Z axis" features of the handle and the securing pin which features is not shown in the Smith, the Weiland or Emmertt references.

Still further, the distinctions of the present invention over the Smith and Weiland references are clearly set forth above.

The Emmertt reference describes a 2-dimensional latch and fails to teach the present invention and fails to provide any of the deficiencies of the Smith and/or Weiland

references. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims. In addition, the argument is presented on the previous responses are applicable herein and are fully incorporated herein by reference.

Therefore, the Smith, Weiland and Emmertt references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

IX. Reconsideration of the rejections of claims 11 and 12 under 35 U.S.C. §103(a) over the Brown and the Weiland references, as applied above, and further in view of the Emmertt reference is respectfully requested.

Claims 11 and 12 depend from amended claim 1. Claim 1 has been amended to recite, in part, the features of claims 40-41 where the securing means and the locking means are non-threaded. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device.

The dependent claims 11 and 12 further recite the locking and securing device where the first and second biasing means are spaced apart from one another by a rivet pin extending radially through the securing means (claim 11) and where the rivet pin is positioned in the securing pin at substantially a midpoint along a longitudinal length of the securing pin (claim 12).

In contrast, as discussed fully above, the distinctions of the present invention over the Brown, Weiland and Emmertt references are clearly set forth above. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.



Therefore, the Brown, Weiland and Emmertt references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

- X. Reconsideration of the rejections of claims 3-7, 15, 17, 19, 21, 34-37 and 44-46 under 35 U.S.C. §103(a) over the Brown reference, in view of the Smith reference is respectfully requested.

As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, claims 4 – 5, 17, 34 – 37 and 44 have been cancelled and claims 3, 6 -7, 19, 21, and 45-46 depend from either independent claims 1 or 15, which have been amended to recite, in part, the features of claim 8 where the securing means further includes at least one biasing means for holding the securing means in the secured position which features are not shown or suggested in either the Brown or Smith references.

In contrast, the Brown and Smith references, which have been fully discussed above, fail to teach the present invention. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by references.

Therefore, the Brown and Smith references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

- XI. Reconsideration of the rejections of claims 8-10, 22-24 and 29 under 35 U.S.C. §103(a) over the Brown and Smith references, as applied above, and further in view of the Weiland reference is respectfully requested.

Claim 8 has been canceled and the claims 9-10, 22-24 and 29 depend from either independent claims 1 or 15, as fully discussed above. As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, the claims have been amended to recite, in part, the features of claims 40-41 where the securing means and the locking means are non-threaded.

Further, the distinctions of the present invention over the Brown, the Smith and the Weiland references are clearly set forth above. One feature of the present invention, as recited in the amended claims, is that the securing means further includes at least one biasing means for holding the securing means in the secured position.

In the Brown, Smith and Weiland references, the movement of the bolt/pin is by a non-co-axial force. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims where there is a biasing means. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

Therefore, the Brown, Smith and Weiland references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

- XII. Reconsideration of the rejections of claims 11, 12, 25-28, 30-33, 38, 39 and 47-49 under 35 U.S.C. §103(a) over the Brown, the Smith and the Weiland references, as applied above, and further in view of the Emmertt reference is respectfully requested.

As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, claims 33, 38 – 39 and 47 have been cancelled and the claims 11, 12, 25-26, 28, 30-33, 38, 39 and 47-49 depend from either independent claims 1 or 27, as fully described above. The distinctions of the present invention over the Brown, the Smith and the Weiland references are clearly set forth above. One feature of the present invention, as recited in the claims, is that the securing means includes at least one biasing means for holding the securing means in the secured position which features are not shown or suggested in the Brown, Smith, the Weiland or the Emmertt references.

The Emmertt reference fails to supply any of the deficiencies of the Brown, Smith and Weiland cited references. Rather, the Emmertt reference, as also fully described above, recites an offset automatic latch where a force is not supplied as substantially coaxial center of a securing means. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

Therefore, the Emmertt reference also teaches away from the present invention by having an offset latching mechanism. Therefore, the Examiner is respectfully requested to withdraw this rejection of the claims.

XIII. Reconsideration of the rejections of claims 9, 10, 23 and 24 under 35 U.S.C. §103(a) over the Perry and the Weiland references, as applied above, is respectfully requested.

As discussed above in Section I, none of the references teach or describe a 3-dimensional locking and securing device. In particular, the claims 9, 10, 23 and 24 depend from either independent claims 1 or 15, as fully described above. The distinctions of the present invention over the Perry and the Weiland references are also clearly set forth above. Also, the claims have been amended to recite, in part, the features of claims 40-41 where the securing means and the locking means are non-threaded. There is no teaching or suggestion of the locking and securing device, as now recited in the amended claims. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

Therefore, the Perry and Weiland references, either taken alone or in combination, teach away from the present invention and the Examiner is respectfully requested to withdraw this rejection of the claims.

XIV. Reconsideration of the rejections of claims 11, 12, 25 and 26 under 35 U.S.C. §103(a) over the Perry and Weiland references, as applied above, and further in view of the Emmertt reference is respectfully requested.

The claims 11, 12, 25 and 26 depend from either independent claims 1 or 15, as fully described above. The claims have been amended to recite, in part, the features of claims 40-41 where the securing means and the locking means are non-threaded. The distinctions of the present invention over the Perry and Weiland references are also clearly set forth above. One feature of the present invention, as recited in the claims, is that the securing means includes at least one biasing means for holding the securing means in the secured position.

The Emmertt reference fails to supply any of the deficiencies of the Perry and Weiland cited references. Therefore, the Emmertt reference also teaches away from the present invention and the Emmertt reference, either taken alone or in combination with the Perry and Weiland references, fails to teach or suggest the present invention. In addition, the arguments presented in the previous responses are applicable herein and are fully incorporated herein by reference.

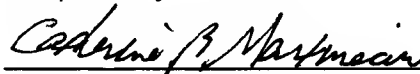
Therefore, the Examiner is respectfully requested to withdraw this rejection of the claims.

XV. The claims pending in the instant application are now in condition for allowance.

The amendments to the specification and claims, and the arguments herein were necessitated by the references and the newly presented grounds of rejection. Further, the arguments presented in the previous responses are applicable and are fully incorporated herein. These amendments place the application in condition for allowance.

Applicant submits that the present invention is patentably distinct and a favorable action is respectfully requested.

Respectfully submitted,



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